

# **Knowledge Organisers**

## **1<sup>st</sup> Autumn Term**

**Science**

**History**

**Geography**

**Art**

**PSHE**

**Latin**

**Computing**

**R.E.**

**Music**

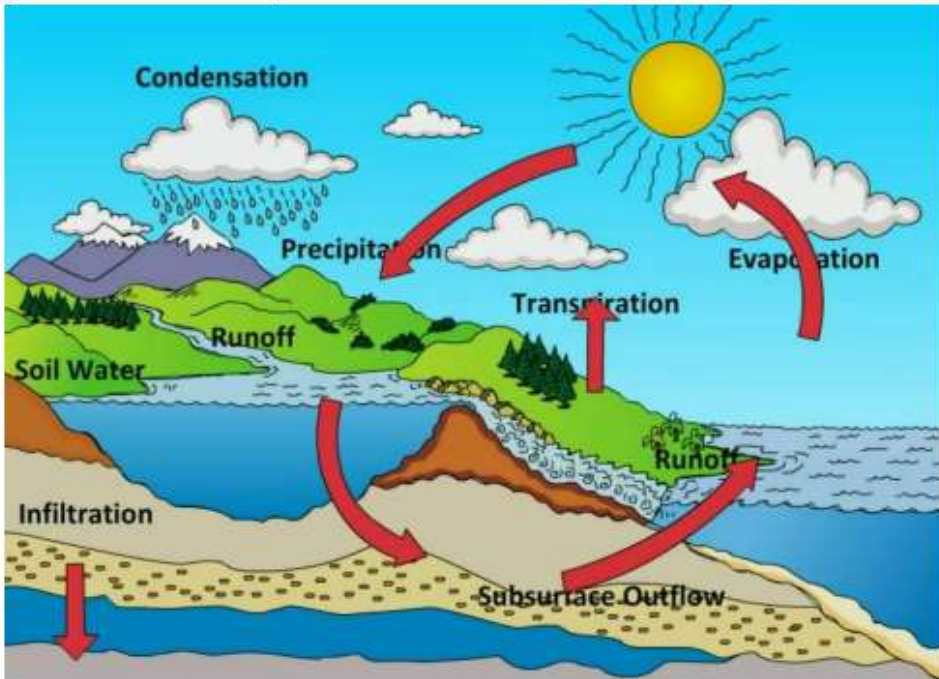
**P.E.**

**Class 3 - Year 5 & 6**

## Knowledge Organiser – Science – Year 4 – States of Matter

Vocabulary	
<b>State</b>	states of matter are solids, liquids and gases
<b>Particle</b>	a small portion of matter
<b>Melt</b>	when something becomes a liquid through heating
<b>Cool</b>	bring to a lower temperature
<b>Thermometer</b>	instrument for measuring temperature
<b>Evaporation</b>	process of turning liquid into vapour
<b>Condensation</b>	vapour or gas turns into a liquid
<b>Reversible</b>	When materials can be changed back to how they were before the reaction took place.
<b>Irreversible</b>	This is when materials cannot be changed back to how they were before.

Key Knowledge
I know the properties and behavior of particles in solids and liquids.
I understand that gas is all around us.
I know how heating a substance can change its state.
I understand which changes are reversible and irreversible.
I know that melting means turning a solid into a liquid and cooling it will reverse this.
I understand that puddles disappear when they evaporate and the water vapour condenses into clouds.
I know that water vapour turns into clouds.
I know that water cools and condenses into rain and falls (precipitation).



**solid**



- rigid
- fixed shape
- fixed volume

cannot be squashed



**liquid**

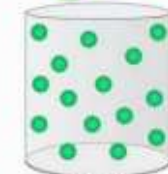


- not rigid
- no fixed shape
- fixed volume

cannot be squashed



**gas**








- not rigid
- no fixed shape
- no fixed volume

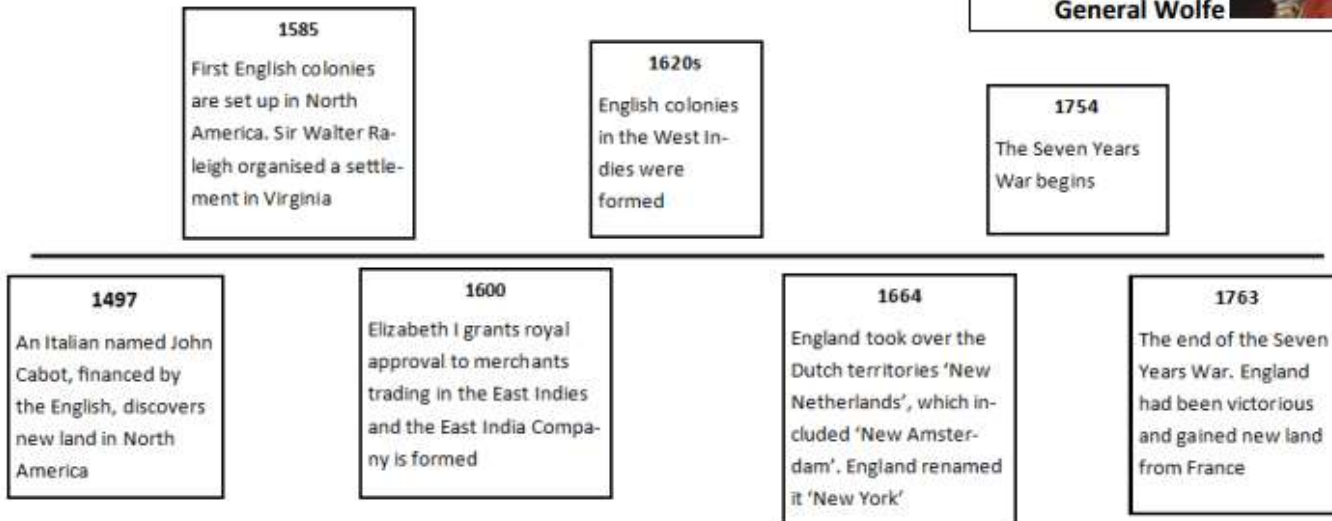
can be squashed

## Knowledge Organiser: The Birth of the British Empire – History - Year 5

Key vocabulary	Definition
<b>Empire</b>	An empire is a group of countries ruled over by a single monarch or ruler
<b>Imperial</b>	Belonging or relating to an empire
<b>Trade</b>	Buying, selling or exchanging goods between people, companies or countries
<b>Colony</b>	A country or area controlled by another country that is often far away
<b>Slave</b>	A person who is owned by another person and has to obey them
<b>Merchant</b>	A person involved in trading goods

Key people	
 <b>John Cabot</b>	An Italian explorer, funded by England, who 'discovered' lands in North America
 <b>Sir Walter Raleigh</b>	Founded a colony in Virginia
 <b>Major-General Robert Clive</b>	A military commander who helped secure an Indian empire for Britain
 <b>Elizabeth I</b>	Queen of England 1508-1603. She gave royal approval to the East India Company
 <b>General Wolfe</b>	He led Britain to victory at the Battle of Quebec

### Timeline



### Key Knowledge:

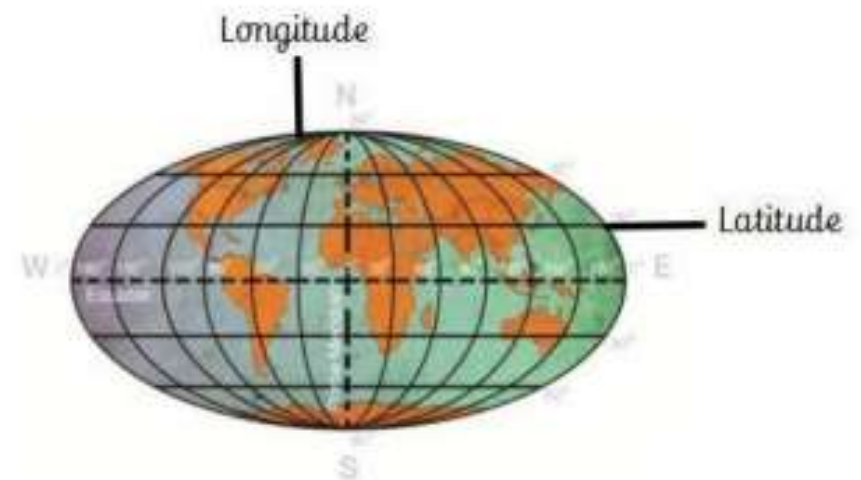
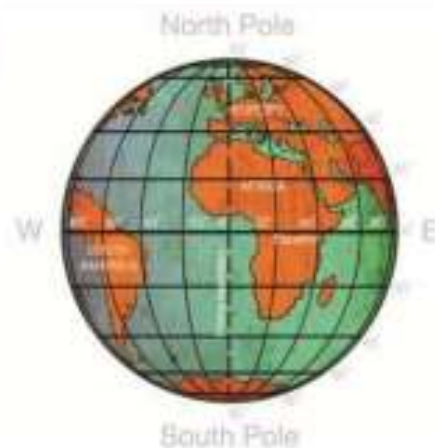
- I know that Britain had an empire.
- I understand the origins of the British Empire in global trade.
- I understand why and how British control spread through India after 1750.
- I understand why the victories of the Seven Years War led to patriotism in Britain.
- I can use my learning to understand why Britain wanted an empire and how it wanted to project a powerful image around the world.



## Knowledge Organiser- Spatial Sense - Geography - Year 5

Key Vocabulary	Definition
<b>Prime meridian line</b>	An imaginary line that divides the earth into two sections to show the EASTERN and WESTERN hemispheres. It also used as the BASIS for world time zones.
<b>Longitude</b>	Imaginary LINES parallel to the prime meridian line that help map makers locate places with accuracy. (Vertical lines)
<b>Latitude</b>	Imaginary LINES parallel to the equator that help map makers to locate places with accuracy. (Horizontal lines)
<b>Eastern Hemisphere</b>	A term used to DESCRIBE places that are east of the meridian line.
<b>Western Hemisphere</b>	A term used to DESCRIBE places that are west of the meridian line.
<b>Relief maps</b>	A map that uses shading and colours to indicate the height of the land.

Key Knowledge:
I understand that map makers draw imaginary lines to divide the world into sections.
I can locate places in the Eastern and Western hemispheres.
I can use coordinates to locate places on a map.
I know how scale is used on a map.
I understand that a relief map shows heights on the map.



# Latin Knowledge Organiser - Unit 1: Meet the Family

Key Vocabulary	
Latin	English
quis es?	Who are you? singular
quī estis?	Who are you? plural
māter	Mother
pater	Father
filia	Daughter
filius	Son
īnfāns	Little child
servī	Slaves
sum	I am
salvē	Hello singular
salvēte	Hello plural
omnēs	Everyone
quis?	Who?
quid?	What?
Fēlīx diēs tibi sit	Happy birthday (may you have a happy day)
grātiās tibi agō	I thank you
fāmōsa	Famous
euge!	Hurrah!
sedāte!	Sit down! (imperative/bossy verb)

**Greek Myth  
Perseus and Medusa**

Key Knowledge
To understand the relevance of learning Latin.
To learn to say hello and goodbye.
To write simple sentences using the verb esse (to be).
To understand the difference between singular and plural.
To translate the description of a character from a Greek myth.



**Meet the Family who live in Vindolanda**

 Lepidina is the mother	 Flavius is the father. He is the fort commander of Vindolanda	 Iulius is the son
 Flavia is the daughter	 Rufus is the young child	 Corinthus and Candidus are slaves
 Pandora is a slave	 Vibrissa is the cat	 Minimus is the mouse

**Unit Motto  
carpe diem = seize the day**

Grammar and Phonics
No capital letters are used in Latin apart from when you are writing someone's name. Don't translate names.
The letter v in Latin makes the sae sound as the letter w in English.
Male names end in -us, female names end in -a.



## Knowledge Organiser- Design - Visual Arts - Year Four

Key Vocabulary	Definition
design	We use the word 'design' to refer to the way the artist made the elements of a piece of art work together
space	The distance within, around and between things in art.
value	The lightness or darkness of a colour
Two-dimensional	An object with just height and width dimensions
Three-dimensional	An object with three dimensions – height, width and depth
texture	How something feels or how something looks like it feels
collage	Collage is an artwork made up of assorted materials glued to a paper, board, or canvas
form	Elements of shape that make up an artwork

### Key Knowledge

I know what collage is.
I can describe 3D sculptures by looking at the shape and form.
I understand how line drawings are created.
I know the difference between 2D and 3D art.



Oval circle  
by Barbara Hepworth



Tawny Owl  
by Alice Lee



Foxy and Frankie  
by Ben Nicholson



Bird and Children  
By Paul Klee



The fall of Icarus  
by Henri Matisse



The Three Musicians  
by Pablo Picasso

Knowledge Organiser – PSHE – Being Me in My World - Year Six



Vocabulary	
<b>Maslow's hierarchy of human needs</b>	The most fundamental needs at the bottom and the need for self-actualization and self-transcendence at the top.
<b>Empathy</b>	The ability to understand and share the feelings of another.
<b>Collaboration</b>	The action of working with someone to produce something.
<b>Legal</b>	Relating to the law. 'A legal requirement'.
<b>Illegal</b>	Contrary to or forbidden by law, especially criminal law.
<b>Lawful</b>	Conforming to, permitted by, or recognised by law or rules.
<b>Democracy</b>	Rule by the people.



Key Knowledge
I know that there are universal rights for all children but for many children these rights are not met.
I can make choices about my own behaviour because I understand how rewards and consequences feel and I understand how these relate to my rights and responsibilities.
I can understand how democracy and having a voice benefits the school community.

Reflective Questions
Ask me this...
What is your ambition for when you leave school?
How do you feel about some of your needs being met and some of them not yet being met? Do you have a choice in how you respond to this?
Which are the six most important rights you would like us to all share at our school?



Being Me in My World  
Maslow's Triangle - PowerPoint Slide 1 - Ages 10-11 - Piece 3





## knowledge Organiser- Repetition in Shapes – Computing – Year 4

Key Vocabulary	Definition
Program	the entire solution to the task, and an implementation of the algorithm as code
Turtle	an arrow or turtle image on screen that draws a line as it is programmed
Command	an instruction given to control a program
Code Snippet	this could be the same as a program; it can have several sets of commands in one program
Algorithm	the part of the design of the program that is precise instructions to be implemented as code
Debug	the process of finding and correcting errors in your code
Decompose	break something down into smaller parts
Procedure	a named code snippet that can be run multiple times.

Key Knowledge:
To identify that accuracy in programming is important
To create a program in a text-based language.
To be able to explain what 'repeat' means
To modify a count-controlled loop to produce a given outcome.
To decompose a task into small steps
To create a program that uses count-controlled loops to produce a given outcome.

### Sequencing and Algorithms

-A **sequence** is a pattern or process in which one thing follows another.

-We design **algorithms** (sets of instructions for performing a task) to help us program the sequence that we require to achieve our desired outcomes.



-**Programming** is the process of keying in the code recognized by the computer (using your algorithm).

### Trialling and Debugging

-Programmers do not put their computer programs straight to work. They **trial** them first to find any errors:



-**Sequence errors:** An instruction in the sequence is wrong or in the wrong place.

-**Keying errors:** Typing in the wrong code.

-**Logical errors:** Mistakes in plan/thinking.  
-If your algorithm does not work correctly the first time, remember to **debug** it.

## The Basics of FMS Logo

-**What is FMS Logo?** Logo is a text-based programming language, where we can type commands which are then drawn on the screen.

-Logo helps us to learn how to use programming language, whilst also being creative and using problem-solving skills.



### The Display:



### Basic Commands:



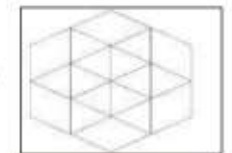
- FD:** Forwards. Always followed by a space and the number of steps, e.g. FD 50
- BK:** Backwards. As above, e.g. BK 50
- LT:** Left turn. Always followed by a space and then the degrees to turn, e.g. LT 90
- RT:** Right turn. As above, e.g. RT 90
- CS:** Clears any pen marks on your screen and gets the turtle back to the centre.
- PU:** Stops turtle from leaving a pen trail.
- PD:** Makes turtle leave a pen trail again.

### Programming Patterns

-**Patterns:** Patterns are things that repeat in a logical way. In everyday life, patterns are everywhere!



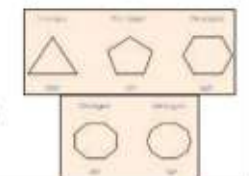
-**Patterns in Logo:** Instead of typing in the code to create each individual shape, we can save time by repeating a sequence of instructions. We use the 'repeat' function.



-**Repeat:** Type the command 'repeat' — this repeats commands a set number of times. The number following repeat is the number of times to repeat the code, and the code to be repeated is in square brackets, e.g. repeat 4 [FD 100 LT 90]

The above code will repeat FD 100 LT 90 four times.

-**Creating Shapes and Loops:** To make shapes, we need to know the angles of corners of different shapes (see right). Using the repeat function with shapes can help us to make spirals.





**R.E. Year 4 Autumn 1 Knowledge Organiser**  
**Enquiry: Buddhism - Is it possible for everyone to be happy?**

Key vocabulary	Definition
Buddhism	A religion about the need to get rid of suffering
Buddhist	A person who follows Buddhism
Prince Siddhattha Gautama	The prince who founded Buddhism. The first Buddha.
Enlightenment	The understanding of how to be happy and free from suffering.
8 fold path	Buddhists rules to help them live good lives





Key Knowledge
I can say the sort of things that make me happy.
I can explain whether being rich would make me happy.
I know some key facts about the first Buddha, Prince Siddhattha.
I know that Prince Siddhattha was rich but he was not happy - then he found Enlightenment.
I can explain how living by the rules of the 8 Fold Path may help a Buddhist to be happy.
I can give examples of how helping other people can make me happy.




Siddhartha Gautama is known as the Buddha.  
 He was born in 580 BCE in the village of Lumbini in Nepal.  
 He discovered true happiness called "Enlightenment" through meditation.  
 An important rule for Buddhists is to lead a good life which helps others and does not hurt people or animals.  
 Buddhists believe they will be happy if they help others.





Buddhism started in Nepal near India in about 4 or 5 BC

Key Vocabulary	Definition
Minim	
Crotchet	
Dotted crotchet	
Quaver	
Tempo	The speed at which music is played
Dynamics	Levels of sound in music (soft to loud)
20 <sup>th</sup> century orchestral	A group of instruments including brass, strings and woodwind
Soul ballad	Traditional blues and gospel music
R&B	Rhythm and blues originating in African American communities in 1940s
Structure	The structure of a song, e.g. intro, verse, chorus outro
Pattern	Same sequence of notes repeated.

**Key Signature: F major** — there is one flat in the key signature




**Key Signature: C major** — there are no sharps or flats in the key signature

How many beats per measure

What note gets one beat

**Key Signature: B $\flat$  major** — there are two flats in the key signature



**Time Signature: 4/4** — there are four crotchet beats in a bar




Songs covered

- Hoedown
- I'm always there
- Martin Luther King





Key Vocabulary	Definition
Cooperate	To work together towards the same goal.
Map	A pictorial representation of an area.
Route	A way of getting from one point to another.
Orienteering	A sport in which people run through a series of waypoints (controls) to guide then

Skills	
Legend	
Problem solving	
Map reading	

**Skill Development**

Keep the map set (or orientated) so that you know where you are on the map and which direction you need to travel. When turning, make sure the map does not turn, and stays 'set'.

To communicate and co-operate effectively with others

To follow a set route on a map

To record clues and decipher a code.